ABSTRACT

Methods of measuring the presence/absence of a coupling factor 6, which is a subunit of H^+-transporting ATP synthase $\rightarrow$ H^+ ATP synthase present in the mitochondrial inner membrane, in the blood and the concentration thereof are provided. Further, relations among the coupling factor 6 level in the blood and diseases and relations among the inhibition of the effect of the coupling factor and therapeutic effects on diseases are clarified and thus techniques for diagnosing and treating these diseases are provided.

The present invention provides a vector containing a DNA encoding the coupling factor 6 or fragment thereof; a transformant transformed by this vector; and a method of producing the coupling factor 6 and its fragment. The present invention further provides an antibody reacting specifically with the coupling factor 6; a process of producing the antibody; and a method of assaying the coupling factor 6. The present invention furthermore presents findings on the relations among the onset and progress of diseases and the blood coupling factor 6 level and effects of ameliorating the pathological conditions by inhibiting the coupling factor 6, thereby providing means of diagnosing and treating various diseases associated with changes in the blood coupling factor 6 level or the prostacyclin production/$cPLA_2$ inhibiting activities.